

IC 723 as Negative Voltage Regulator

Model : SB-114

SINCOM SB-114 IC723 as Negative Low Voltage Regulator is very useful simply designed trainer to study the operation, line and load regulation characteristics of IC723 as Negative Low Voltage Regulator with variable load in a simple experimental way. The Trainer is without meters and has the facility to connect the external analog or digital Voltmeter and Ammeter in the circuit.

Features

- ❖ User friendly Design
- ❖ IC723 wired with Resistive, Capacitive and PNP Transistor network as a linear Negative Low Voltage Regulator
- ❖ Adjustable Regulated Negative DC Output voltage between -2V to -7V.
- ❖ Output Voltage Control by two Resistors
- ❖ High operating Temperature range
- ❖ Variable Resistive Load
- ❖ Facility to vary wide range of applied negative DC Input voltage
- ❖ Facility to vary negative regulated Output DC Voltage
- ❖ In-Built Variable regulated negative DC Power Supply
- ❖ Very Easy for Operation
- ❖ Multi color Circuit Diagram printed on the front panel of the white board.
- ❖ Enclosed in an attractive, light weight, High Quality, Poly Coated Imported Pine Wooden cabinet
- ❖ Facility to connect external Digital/Analog Voltmeter and Ammeter
- ❖ Interconnections by 2mm high quality banana sockets and pins
- ❖ Maximum Test points to explore all the corners of experiment
- ❖ 1 Year Warranty

Technical Specifications

▪ AC Mains Power Supply	: 230V \pm 10%, 50Hz
▪ DC Power Supply	: IC Regulated Variable 0V to -12V/500mA
▪ Unregulated DC Input Vin	: 0 to -12V DC Input
▪ Regulated DC Output Vo	: Adjustable between -2V to -7V
▪ Output Voltage Control	: By Two fixed Resistors at Error amplifier IN
▪ IC Used	: IC LM723 Monolithic Programmable IC Voltage regulator
▪ IC Package	: 14 Pin DIP Plastic Package
▪ IC Output Current	: 150mA Max without external pass transistor
▪ Load Resistor	: 10K Ω Variable Resistive Load
▪ Regulation type	: Line and Load Regulation
▪ Weight	: 2.0 kg (approx)
▪ Dimensions (mm)	: L 220 x W 270 x H 110
▪ Interconnections	: 2mm Banana sockets
▪ Operating Temperature	: 0-50 $^{\circ}$ C, 80% RH

Learning Scope

- To Study IC 723 as (adjustable) Negative low voltage regulator. Compare theoretical & Practical values.
- To Study Change in O/P Voltage w.r.t. change in I/P Voltage with Load RL constant (Line Regulation)
- To Study Change in O/P Voltage w.r.t change in Load RL with I/P voltage constant (Load Regulation)

Other Instruments Required

SINCOM Digital Multi VI meter (DMVI) : Model DMVI-03 Range V_1 -20V, I_1 -20mA, V_2 -20V, I_2 -200mA DC

Accessories Included : Set of Patch Cord and Details Instruction Manual